Amendments to the Claims:

1. (Previously presented): A method of depositing an elemental form silicon-comprising material over a semiconductor substrate, comprising:

positioning a semiconductor substrate within a chamber for deposition, the chamber comprising an infrared radiation transparent wall;

depositing an elemental form silicon-comprising material on the semiconductor substrate; during said depositing, forming a deposit on the infrared radiation transparent wall within the chamber; and

after said depositing, generating a plasma within the chamber with a cleaning gas from at least one plasma generating electrode received external of the chamber proximate the infrared radiation transparent wall effective to remove at least some of the deposit from the infrared radiation transparent wall within the chamber.

2. (Original): The method of claim 1 comprising multiple infrared radiation transparent walls, each of said walls having at least one plasma generating electrode received external of the chamber proximate thereto and from which plasma in generated during said generating.

3. (Original): The method of claim 1 wherein the elemental silicon-comprising material is crystalline.

4. (Original): The method of claim 3 wherein the elemental silicon-comprising material comprises selectively deposited epitaxial silicon.

5. (Original): The method of claim 4 the selectively deposited epitaxial silicon comprises Ge.

6. (Original): The method of claim 1 wherein the deposit comprises silicon.

7. (Original): The method of claim 1 wherein the deposit comprises a polymer.

8. (Original): The method of claim 7 wherein the deposit comprises silicon.

9. (Original): The method of claim 1 wherein the generating removes all of the deposit.

10. (Original): The method of claim 1 wherein the generating occurs while no semiconductor substrate is in the chamber.

11. (Original): The method of claim 1 wherein the cleaning gas comprises a halogen.

12. (Original): The method of claim 11 wherein the halogen comprises chlorine.

13. (Original): The method of claim 12 wherein the cleaning gas comprises Cl_2.

14. (Original): The method of claim 12 wherein the cleaning gas comprises Cl_2 and H_2.

15. (Original): The method of claim 12 wherein the cleaning gas comprises Cl_2, H_2, and Ar.

16. (Original): The method of claim 11 wherein the halogen comprises fluorine.

17. (Original): The method of claim 16 wherein the cleaning gas comprises NF_3.

18. (Original): The method of claim 16 wherein the cleaning gas comprises NF_3 and H_2.

19. (Original): The method of claim 16 wherein the cleaning gas comprises NF_3, H_2, and Ar.

20. (Original): The method of claim 1 comprising rotating the semiconductor substrate during the depositing.

21. (Original): The method of claim 1 wherein no plasma is generated during the depositing.

22. (Original): The method of claim 1 wherein plasma is generated during the depositing.

23. (Previously presented): The method of claim 22 wherein the plasma generated during the depositing is not generated with said plasma generating electrode received external of the chamber proximate the infrared radiation transparent wall.

Claims 24-42 (Canceled).

43. (Previously presented): A method of depositing an elemental form silicon-comprising material over a semiconductor substrate, comprising:

positioning a semiconductor substrate within a chamber for deposition,

the chamber comprising first and second infrared radiation transparent walls, heat flowing to the substrate through the first infrared radiation transparent wall from at least one lamp received external of the chamber;

depositing an elemental form silicon-comprising material on the semiconductor substrate using heat flowing to the substrate through the first infrared radiation transparent wall from the at least one lamp received external of the chamber as a heat source;

during said depositing, detecting substrate temperature by measuring emissivity through the second infrared radiation transparent wall using a non-contacting emissivity sensor;

during said depositing, forming a deposit on the second infrared radiation transparent wall within the chamber; and

after said depositing, generating a plasma within the chamber with a cleaning gas from at least one plasma generating electrode received external of the chamber proximate the second infrared radiation transparent wall effective to remove at least some of the deposit from the second infrared radiation transparent wall within the chamber.

44. (Original): The method of claim 43 wherein the first infrared radiation transparent wall is received below the positioned substrate.

45. (Original): The method of claim 43 wherein the second infrared radiation transparent wall is received above the positioned substrate.

46. (Original): The method of claim 43 wherein no heating lamp is received external of the chamber which directs heat to the second infrared radiation transparent wall during said depositing.

47. (Original): The method of claim 43 wherein at least one heating lamp is received external of the chamber for directing heat to the second infrared radiation transparent wall.

48. (Original): The method of claim 47 wherein the at least one heating lamp for directing heat to the second infrared radiation transparent wall is used during said depositing to flow heat to the substrate through the second infrared radiation transparent wall.

49. (Original): The method of claim 43 wherein no heating lamp is used during said depositing to flow heat to the substrate through the second infrared radiation transparent wall.

50. (Previously presented): The method of claim 43 wherein,

during said depositing, forming a deposit on the first infrared radiation transparent wall within the chamber; and

at least one plasma generating electrode is received external of the chamber proximate the first infrared radiation transparent wall and from which plasma is generated during said generating and being effective to remove at least some of the deposit from the first infrared radiation transparent wall within the chamber.

51. (Original): The method of claim 43 wherein the elemental silicon-comprising material comprises selectively deposited epitaxial silicon.

52. (Original): The method of claim 43 wherein the deposit comprises silicon.

53. (Original): The method of claim 43 wherein the deposit comprises a polymer.

54. (Original): The method of claim 53 wherein the deposit comprises silicon.

55. (Original): The method of claim 43 wherein the generating removes all of the deposit.

56. (Original): The method of claim 43 wherein the generating occurs while no semiconductor substrate is in the chamber.

57. (Original): The method of claim 43 wherein the cleaning gas comprises a halogen.

58. (Original): The method of claim 57 wherein the halogen comprises chlorine.

59. (Original): The method of claim 58 wherein the cleaning gas comprises Cl_2.

60. (Original): The method of claim 57 wherein the halogen comprises fluorine.

61. (Original): The method of claim 60 wherein the cleaning gas comprises NF_3.

Claims 62-98 (Canceled).

99. (Previously presented): A method of depositing an elemental form silicon-comprising material over a semiconductor substrate, comprising:

positioning a semiconductor substrate within a chamber for deposition, the chamber comprising first and second infrared radiation transparent walls, the first infrared radiation transparent wall being received below the positioned substrate, the second infrared radiation transparent wall being received above the positioned substrate, heat flowing to the substrate through the first infrared radiation transparent wall from at least one lamp received external of the chamber;

depositing an elemental form silicon-comprising material on the semiconductor substrate using heat flowing to the substrate through the first infrared radiation transparent wall from the at least one lamp received external of the chamber as a heat source;

during said depositing, detecting substrate temperature at least in part by measuring emissivity from above the substrate through the second infrared radiation transparent wall using a non-contacting emissivity sensor;

during said depositing, forming a deposit on the second infrared radiation transparent wall within the chamber above the substrate; and

after said depositing, generating a plasma within the chamber with a cleaning gas from at least one plasma generating electrode received external of the chamber proximate the second infrared radiation transparent

wall effective to remove at least some of the deposit from the second infrared radiation transparent wall within the chamber.

100. (Previously presented): The method of claim 99 comprising passing essentially no heat through the second infrared radiation transparent wall during the depositing.

101. (Previously presented): The method of claim 99 wherein the plasma generating electrode received external of the chamber proximate the second infrared radiation transparent wall does not generate a plasma within the chamber during the depositing.

102 (Previously presented): The method of claim 99 wherein the generating occurs while no semiconductor substrate is in the chamber.

103. (Previously presented): The method of claim 99 wherein no heating lamp is used during said depositing to flow heat to the substrate through the second infrared radiation transparent wall.

104. (Previously presented): The method of claim 99 wherein,

during said depositing, forming a deposit on the first infrared radiation transparent wall within the chamber; and

at least one plasma generating electrode is received external of the

chamber proximate the first infrared radiation transparent wall and from which plasma is generated during said generating and being effective to remove at least some of the deposit from the first infrared radiation transparent wall within the chamber.

Claims 105-106 (Canceled).